

ABSTRACT OF THE DISCLOSURE

An electrode device for an electric field emission electron source suitable for duty drive having an element size of 50 μm or smaller and an electrode device fabricating method. A glass film used as catalyst of forming carbon nanotubes is formed on a substrate to form metal catalyst at nano meter level and control dispersion. Carbon nanotubes are dispersively formed on the metal catalyst and a metal coat is formed on the surface of carbon nanotubes to improve electric pulse response characteristics.